

**Original article:**

**The Pattern of Skin & Venereal disorders among patients attending in the OPD of Dermatology & Venereology Department of a tertiary care private hospital, Dhaka, Bangladesh.**

*Alam MN<sup>1</sup>, Husain MA<sup>2</sup>, Quarashi MSA<sup>3</sup>*

**Abstract**

**Background :** It is generally agreed that pattern of skin & venereal diseases differ in different countries and within various regions of a country depending upon social, economic , racial & environmental factor. The morbidity associated with skin and venereal diseases makes them an important public health problem. Very scanty literature is found on the problem which is either disease based, community based or specified population group based. **Objective :** To assess the pattern of skin and venereal diseases in patients in urban Bangladesh and to determine their relation with demographic character. **Materials and method:** It is a descriptive study conducted at dermatology and venereology OPD in Ibn Sina Medical College Hospital, Dhaka for the period from 1<sup>st</sup> January, 2015 to 31<sup>st</sup> December 2015. Six thousand and two hundred and three patients were enrolled during the study period. The study population comprised of newly diagnosed cases as well as relapsing cases presenting in the outpatient irrespective of gender and age. Diagnosis was made on clinical basis. Lab investigations were restricted to the cases where it carried diagnostic importance. The data was collected through pre-designed questionnaire and analyzed through Microsoft SPSS. **Results:** Study was conducted on 6203 patients comprising 3373 (54.38%) males and 2830 (45.62%) females, who attended skin and VD OPD of Ibn Sina Medical College during the period of one year. Males were found to be most commonly affected. Male female ratio is 1.2 : 1. Age group between 15 to 29 years carried maximum incidence (43.79%). All disorders were broadly classified into noninfective (63.5%), infective (20.2%) and miscellaneous dermatoses (16.2%) . Eczema 1721 (27.7%) and fungal infections 694 (11.2%) came out to be the two top most common cause for OPD attendances. **Conclusion:** Our study found a higher prevalence of non-infective dermatoses than infective dermatoses. Eczema and fungal infections formed the largest group in their respective categories.

**Keywords :** Skin diseases; Eczema; Infectious dermatoses; Noninfectious dermatoses.

*Bangladesh Journal of Medical Science Vol. 16 No. 03 July'17. Page : 354-357*

**Introduction:**

Skin diseases affect all ages from neonate to elderly. It causes harm in a number of ways and can have profound effect on both individual and community. It can lead to significant morbidity due to disfigurement, disability, intractable itch and though rare even death from intractable skin disease. The pattern & distribution of dermatological diseases

differ from one country to another country and in various areas within the same country<sup>1</sup>. Skin diseases can be influenced by so many factors like genetics, environment, race, religion, occupation, nutrition and habit<sup>2</sup>. Geographical factors such as season and climate also contribute to the increased prevalence of certain type skin disorders in a particular area. As disease pattern varies in different part of the country,

1. Dr. Mohd. Nurul Alam, Assistant Professor, Department of Dermatology & Venereology, Ibn-Sina Sina Medical College, Dhaka.
2. Dr. Md Anwar Husain, Associate Professor & Head, Department of Dermatology & Venereology, Ibn-Sina Medical College, Dhaka.
3. Dr. Md Shafiu Alam Quarashi, Assistant Professor , Department of Paediatrics, Ibn-Sina Medical College, Dhaka.

**Correspondence to:** Dr. Mohd. Nurul Alam, Assistant Professor, Department of Dermatology and Venereology, Ibn Sina Medical College & Hospital, 1/1-B, Kallyanpur, Mirpur, Dhaka, Bangladesh. E-Mail: [sumondmc58@yahoo.com](mailto:sumondmc58@yahoo.com)

we decided to undertake a retrospective analysis of skin and venereal disease pattern observed in Ibn Sina Medical College Hospital.

#### **Materials & Method :**

This study was undertaken in the outpatient department of dermatology & Venereology, Ibn sina medical college, Dhaka. the study group comprises 6203 patients attending in the outpatient department, Ibn sina medical college, Dhaka, during period of 1<sup>st</sup> January to 31<sup>st</sup> December, 2015. All the cases were subjected to thorough history taking including name, age sex, address, religion, economic status of the family along with chief complaints, total duration of disease, related past, family and treatment history, complete general, physical, local and systemic (where necessary) examination. Investigations were done where necessary. All newly diagnosed cases as well as relapsing cases presenting with skin & venereal diseases, all ages and both sexes, with patient/ guardian giving verbal consent for the study, were included in the study. Burns, congenital/traumatic dermatological problem, acute febrile exanthematic rashes and patients visiting the facility as follow up for the same skin problem were excluded. Data were collected on special proforma and analysed using appropriate method. Ethical approval was taken from "Research and Ethics Committee" of the Ibn Sina Medical College Hospital prior to start this research.

#### **Results :**

A total of 6203 (only new patients) patients were included in the study conducted over a period of 1 year , of which 3373 (54.38%) were male and 2830 (45.62%) were females. All disorders were broadly classified into noninfective (63.5%) (Table 1), infective (20.3%), and miscellaneous dermatoses (16.2%) (Table 2). Disease related incidence has been given in (Table 1 & Table 2). Most common diseases were found to be eczema (27.7%), followed by fungal infections (11.2%), erectile dysfunction & premature ejaculation (6.2%), acne (5.98%), seborrheic dermatitis (5.36%), urticaria (3.98%), bacterial infection (3.56%) (Table 1 & 2). Among the non-infective dermatoses, eczema (27.7%), and acne (5.98%) and seborrheic dermatitis (5.36%) constituted top 3 most common dermatoses, whereas fungal infections (11.2%), viral infections (2.9%) and scabies (2.67%) constituted top 3 infectious dermatoses.

Maximum number of patients reported in the age group of 15-29 (43.78%) years followed by 30-44 (24.45%) years. Males out numbered females in all age groups except those between 45-59 years, where females were predominantly involved.

**Table 1: Incidence of non-infective dermatoses**

Disease	Number of patients	Percentage
Eczema	1721	27.7
Seborrheic dermatitis	333	5.36
Acne	371	5.98
Urticaria	247	3.98
Photodermatitis	33	0.53
Drug reaction	41	0.66
Psoriasis	69	1.11
Lichen planus	43	0.7
SLE/DLE	15	0.24
Melasma	219	3.5
Vitiligo	75	1.2
Benign skin growths & skin tags	177	2.85
Alopecia	198	3.14
a. Telogen effluvium	107	1.7
b. Androgenic alopecia	51	0.8
c. Alopecia areata	40	0.64
Erectile dysfunction & premature ejaculation	383	6.2
<b>Total</b>	<b>3940</b>	<b>63.5</b>

**Table 2: Incidence of infective dermatoses**

Disease	Number of patients	Percentage
Fungal infections	694	11.2
a. Tinea capitis	15	0.24
b. Tinea corporis	139	2.2
c. Tinea cruris	138	2.2
d. Tinea pedis	48	0.77
e. Onychomycosis	62	0.99
f. Candidiasis	131	2.11
g. Pityriasis versicolor	150	2.6
Bacterial infection	221	3.56
a. Furuncle/carbuncle	94	1.5
b. Impetigo	42	0.67
c. Gonorrhoea	10	0.16
d. Syphilis	16	0.25
e. Nongonococcal urethritis	55	0.89
Viral infection	182	2.9
a. Herpes simplex	21	0.34
b. Varicella	26	0.42
c. Herpes zoster	48	0.77
d. Warts	87	1.4
Scabies	166	2.67
Cutaneous tuberculosis	2	0.03
Hansen's disease	3	0.04
<b>Total</b>	<b>1258</b>	<b>20.3</b>
Miscellaneous (including both infective and non infective dermatoses)	1005	16.2
<b>Total</b>	<b>2263</b>	<b>36.5</b>

**Table 3: Incidence in different age groups**

Age group (years)	Number of males (%)	Number of females (%)	Total number of patients (%)
≤ 14	474 (50.96)	456 (49.03)	930 (14.99)
15-29	1434 (52.20)	1282 (47.80)	2716 (43.78)
30-44	924 (60.90)	593 (39.09)	1517 (24.45)
45-59	325 (48.65)	343 (51.35)	668 (10.76)
≥ 60	216 (58.06)	156 (41.94)	372 (05.99)
Total	3373 (54.38)	2830 (45.62)	6203 (100)

**Discussion:**

In this study non infectious patients were more than infectious patient. Most of the earlier studies have reported higher incidence of non infective dermatoses<sup>3,5,7,21</sup>. Among the non infectious group eczema (27.7%) is the most common followed by erectile dysfunction & premature ejaculation (6.2%), acne (5.98%), seborrheic dermatitis (5.36%). Emmanouil K S & others<sup>4</sup> in Mediteranean island found frequency of eczema comparative to our study. Moreover eczema topped the list of dermatoses in other studies.<sup>5-8</sup>

In our study, acne was seen in 5.98% of the enrolled subjects. The frequency of acne in our study is somewhat similar to that in the past studies<sup>5,9,22-25</sup>. Maryum H et al.<sup>18</sup>, Zamanian et al.<sup>15</sup> Tamizz uddin et al.<sup>19</sup> and Agarwal et al.<sup>20</sup> have reported frequencies somewhat higher than our study.

The frequency of urticaria (3.98%) in the current study is somewhat similar to that in the past studies<sup>22-25</sup>. On the contrary, Maryum H et al.<sup>18</sup>, Zamanian et al.<sup>15</sup> Tamizz uddin et al.<sup>19</sup> and Agarwal et al.<sup>20</sup> have reported frequencies somewhat higher than our study.

Out of all patients with papulosquamous disorder, psoriasis was seen in 1%, while lichen planus in 0.7%. likewise the frequency of these disorders has also been reported to be around 1% or in the past studies<sup>17,18,22-24</sup>. However Ahmed et al.<sup>25</sup> have reported higher frequency as compared to the current study. On the contrary no comparable figures were quoted in the studies mentioned from Iran,<sup>15</sup> Saudi Arabia.<sup>20</sup>

Melasma (3.5%) and vitiligo (1.2%) were the most common pigmentary disorders in this study. Vinita G,<sup>17</sup> Ahmed et al.<sup>25</sup> have reported a similar frequency for melasma. The frequency of vitiligo around 1% in the past studies<sup>17,22-24</sup> is consistent with the current study.

Hair disorders were recorded in 198 patients (3.14%). Maryum H et al.<sup>18</sup> have reported the frequency of hair disorders to be 4%, almost similar to our study,

where as Ahmed et al.<sup>25</sup> have reported the frequency of hair disorders to be 8%, almost twice that recorded in our study.

In the current study, infections had a frequency of 20.2%. the frequency of infections was reported to be more or less equivalent in the study by Maryum H et al.<sup>18</sup> and Tamizz uddin et al.<sup>19</sup> On the other hand past studies from Karachi,<sup>22,25</sup> Lahore,<sup>23</sup> Bahawalpur,<sup>24</sup> reported a higher a frequency as compared to the current study. On the contrary Devi and Zamzachin,<sup>5</sup> and some other studies<sup>9,17</sup> have reported more higher incidence. This difference could be explained by a differenc in setting and design of the studies.

Among the infectious group fungal infection is the commonest (11.2%) form of dermatological presentation followed by viral infections (2.9%), scabies (2.67%) and pyoderma (2.17%). Similar findings were found in studies conducted by Sk Sarker and AKMS Islam<sup>9</sup>, Karanti BK<sup>10</sup>, Sharma et al.<sup>11</sup> and Vinita G.<sup>17</sup> This can be attributed to the climatic differences between different geographical areas. Similarly in our study, maximum cases of fungal infections were reported during rainy season, heat and humidity being the important factors contributing to their higher incidence.

Very low incidence of Hansen's disease and cutaneous tuberculosis, similar to most other studies,<sup>5,9,21</sup> can be attributed to the fact that these patients mainly attend either government hospitals or leprosy centers and DOT centers where MDT are distributed free of cost. In our study age of the patients enrolled varied from birth to 90 years. Age groups between 15-29 years (43.78%) were reported to have maximum incidence followed by 30-44 years (24.45%). Age group of 11-30 years was reported to have maximum incidence in a study from Allahabad,<sup>14</sup> while other studies reported maximum incidence in age groups of 20-30 and 30-40 years.<sup>12,13</sup> A study<sup>17</sup> from Haryana showed maximum incidence in the age group of 30-44 years closely followed by 15-29 years.

Males outnumbered females in our study (M/F

= 54.38/45.62). some studies have reported male preponderance,<sup>8</sup> while other studies have reported female preponderance.<sup>12,16</sup>

Interestingly we found 383(6.2%) patients of erectile dysfunction & premature ejaculation in our dermatology & Venereology OPD. We found no comparative study about this.

#### **Conclusion :**

Our study found a higher prevalence of non-infective dermatoses than infective dermatoses. Eczema and fungal infections formed the largest group in their

respective categories. Since males and young adults were found to be mostly affected and eczema and fungal infections found to be the most common diseases, nature of occupation, living conditions, lack of awareness all contribute to an increasing burden of skin & venereal diseases in the society. Role of public awareness regarding personal and community hygiene and timely reporting of skin & venereal diseases is of great importance for reducing disease burden and improved quality of life .

**Conflict of interest : None**

#### **References :**

1. Rook A, Savin JA, Wilkinson DS, the prevalence, incidence and ecology of diseases of skin, In: Rook A, Wilkinson DS, Ebling FJ, Champion RH, Burton JL, editors, Text book of Dermatology. Oxford University Press : Mumbai 1987, p 39-53.
2. Parthasaradhi A, Al Gufai AF. The pattern of skin diseases in Hail region, Saudi Arabia. Saudi Med. J 2004;25: 507-510.
3. Rao GS, Kumar SS, Sandhya. Pattern of skin diseases in an Indian village. Indian journal of medical science 2003;57(3):108-10.
4. Symvoulakis E K, Krasagakis K, Komninos I D, Kastrinakis I, Lyronis I, Philaliyhis A, Tosea AD. Primary care and pattern of skin diseases in a mediteranean island. B M C Family practice 2006; 7:6. <https://doi.org/10.1186/1471-2296-7-6>
5. Devi Th, Bijayanti, Zamzachin G. Pattern of skin diseases in Imphal. Indian journal of dermatology 2006;51(2):149-150. <https://doi.org/10.4103/0019-5154.26943>
6. Metha TK. Pattern of skin diseases in india. Indian J Dermatol Venerol Leprol 1962;28:134-9.
7. Gangadharan C, joseph A, sarojini PA. pattern of skin diseases in Kerala. Indian J Dermatol Venerol Leprol 1976;42:49-51.
8. Dayal SG, Gupta GP. A cross section of skin diseases in Bundelkhand region, UP. Indian J Dermatol Venerol Leprol 1977;43:258-61.
9. Sarkar SK, Islam AKMS, Sen KG, Ahmed ARS. Pattern of skin diseases in patients attending OPD of dermatology department at Faridpur Medical College Hospital, Bangladesh. Faridpur Med. Coll. J 2010;5(1):14-16.
10. Karanti BK. Pattern of skin diseases in a semi urban community of delhi. Indian J Dermatol Venerol Leprol.1984;50:213-4.
11. Sharma NL, Sharma RC. Prevalence of dermatological diseases In school children of a high altitude tribal area of Himachal Pradesh. Indian J Dermatol Venerol Leprol 1990;56:375-6.
12. Joel jj, jose N, Shastry CS. Patterns of skin disease and prescribing trends in rural india. Sch Acad J pharm 2013;2;304-9.
13. Nitin Mishra, Neeraj Srivastava, Pratik Gahalaut, madhur K Rastogi. Pattern of dermatological disorders in a private skin clinic of Rohilkhand region in india. J Pak Assoc Dermatol 2014;24:138-42.
14. Grover S, Ranyal RK, Bedi MK. A cross section of skin diseases in rural Allahabad. Indian J Dermatol Venerol Leprol 2008;53:179-81. <https://doi.org/10.4103/0019-5154.44789>
15. Zamanian A, Mahjub H. Prevalence of skin diseases in Hamedan, Iran in 2002. Indian J Dermatol Venerol Leprol 2005;50:208-11.
16. Kuruvilla M, Sridhar KS, Kumar P, Rao GS. Pattern of skin diseases in Bantwal Taluq, dakshina Kannada. Indian J Dermatol Venerol Leprol.2000;66:247-8.
17. Gupta V. pattern of skin diseases in rural india: A hospital based study. International Journal of Scientific Study 2015;3(1).
18. Maryum H, Alam MZ, Ahmed I. pattern of skin diseases in a tertiary care private hospital, Karachi. J Pak Assoc Dermatol 2014;24(4):292-297.
19. Tameez-Ud-Din, Butt AQ, Bangash FA, Abbas H. Burden of skin diseases at a tertiary care hospital. J Rawalpindi Med coll. 2010;14:90-2.
20. Agarwal PK, pattern of skin diseases in Al-jauf region. Ann Saudi Med. 1997;17:112-4.
21. Das KK. Pattern of dermatological diseases in guahati medical college and hospital, Guahati. Indian J Dermatol Venerol Leprol.2003;69:16-8.
22. Haroon TS. Patternof skin diseases in Karachi. J Pak Assoc Dermatol 1985;35:73-8.
23. Shabbir G. Dermatoses prevalent in Lahore. The Medicus. 1961;22:33-42.
24. Qamar AG, Malik RA. Skin diseases in Bahawalpur. J Pak Assoc Dermatol 2000;10:3-8.
25. Ahmed I, Ansari M, Maick K. An audit of dermatoses at Baqai institute of skin diseases, Karachi. J Pak Assoc Dermatol 2003;13:113-7.